



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 K Suction Superheat
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|------|------|------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 3.00 | 3.72 | 4.59 | 5.60 | 6.78 | | | | | |
| 15.0 | 2.86 | 3.57 | 4.42 | 5.41 | 6.56 | | | | | |
| 20.0 | 2.71 | 3.41 | 4.24 | 5.20 | 6.32 | 7.61 | | | | |
| 25.0 | 2.55 | 3.24 | 4.04 | 4.98 | 6.06 | 7.31 | 8.74 | | | |
| 30.0 | 2.38 | 3.05 | 3.83 | 4.73 | 5.78 | 6.98 | 8.36 | 9.93 | 10.60 | |
| 35.0 | 2.21 | 2.86 | 3.61 | 4.48 | 5.48 | 6.64 | 7.96 | 9.47 | 10.15 | 11.15 |
| 40.0 | 2.04 | 2.66 | 3.37 | 4.20 | 5.17 | 6.27 | 7.54 | 8.99 | 9.62 | 10.60 |
| 45.0 | 1.86 | 2.45 | 3.13 | 3.92 | 4.84 | 5.89 | 7.10 | 8.48 | 9.08 | 10.05 |
| 50.0 | | 2.24 | 2.88 | 3.63 | 4.50 | 5.49 | 6.64 | 7.95 | 8.53 | 9.44 |
| 55.0 | | | 2.63 | 3.33 | 4.14 | 5.08 | 6.17 | 7.41 | 7.95 | 8.82 |
| 60.0 | | | | 3.03 | 3.78 | 4.66 | 5.67 | 6.84 | 7.35 | 8.17 |
| 65.0 | | | | | 3.41 | 4.22 | 5.17 | 6.25 | 6.73 | 7.51 |
| 70.0 | | | | | 3.04 | 3.78 | 4.65 | 5.66 | 6.10 | 6.82 |

50 Hz

ZH08KCU-TFMN

R290

| Cond °C | Power, kW | | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|------|------|------|------|------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 1.10 | 1.10 | 1.10 | 1.12 | 1.12 | | | | | |
| 15.0 | 1.20 | 1.20 | 1.22 | 1.23 | 1.24 | | | | | |
| 20.0 | 1.30 | 1.32 | 1.33 | 1.34 | 1.36 | 1.36 | | | | |
| 25.0 | 1.42 | 1.44 | 1.45 | 1.46 | 1.48 | 1.50 | 1.51 | | | |
| 30.0 | 1.54 | 1.56 | 1.58 | 1.60 | 1.62 | 1.64 | 1.65 | 1.67 | 1.68 | |
| 35.0 | 1.68 | 1.70 | 1.72 | 1.74 | 1.76 | 1.78 | 1.80 | 1.83 | 1.84 | 1.85 |
| 40.0 | 1.83 | 1.86 | 1.88 | 1.90 | 1.93 | 1.95 | 1.98 | 2.00 | 2.01 | 2.02 |
| 45.0 | 2.00 | 2.03 | 2.05 | 2.08 | 2.11 | 2.13 | 2.16 | 2.19 | 2.20 | 2.21 |
| 50.0 | | 2.21 | 2.24 | 2.27 | 2.30 | 2.33 | 2.36 | 2.39 | 2.40 | 2.42 |
| 55.0 | | | 2.46 | 2.49 | 2.52 | 2.55 | 2.59 | 2.62 | 2.63 | 2.65 |
| 60.0 | | | | 2.73 | 2.76 | 2.80 | 2.83 | 2.87 | 2.88 | 2.90 |
| 65.0 | | | | | 3.03 | 3.07 | 3.10 | 3.14 | 3.16 | 3.18 |
| 70.0 | | | | | 3.32 | 3.36 | 3.40 | 3.44 | 3.46 | 3.48 |

| Cond °C | Current at 400 V, A | | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|------|------|------|------|------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 2.88 | 2.88 | 2.89 | 2.89 | 2.90 | | | | | |
| 15.0 | 2.97 | 2.98 | 2.99 | 3.00 | 3.01 | | | | | |
| 20.0 | 3.08 | 3.09 | 3.11 | 3.12 | 3.13 | 3.15 | | | | |
| 25.0 | 3.20 | 3.22 | 3.24 | 3.25 | 3.27 | 3.29 | 3.30 | | | |
| 30.0 | 3.34 | 3.36 | 3.38 | 3.41 | 3.43 | 3.45 | 3.47 | 3.49 | 3.50 | |
| 35.0 | 3.50 | 3.53 | 3.55 | 3.58 | 3.60 | 3.63 | 3.66 | 3.68 | 3.69 | 3.71 |
| 40.0 | 3.68 | 3.72 | 3.75 | 3.78 | 3.81 | 3.84 | 3.87 | 3.90 | 3.91 | 3.93 |
| 45.0 | 3.90 | 3.93 | 3.97 | 4.00 | 4.04 | 4.07 | 4.11 | 4.14 | 4.16 | 4.18 |
| 50.0 | | 4.18 | 4.22 | 4.26 | 4.30 | 4.34 | 4.38 | 4.42 | 4.44 | 4.46 |
| 55.0 | | | 4.51 | 4.55 | 4.60 | 4.64 | 4.69 | 4.73 | 4.75 | 4.78 |
| 60.0 | | | | 4.89 | 4.94 | 4.99 | 5.04 | 5.09 | 5.11 | 5.14 |
| 65.0 | | | | | 5.32 | 5.37 | 5.43 | 5.48 | 5.51 | 5.54 |
| 70.0 | | | | | 5.74 | 5.80 | 5.86 | 5.93 | 5.95 | 5.99 |

| Cond °C | Suction Mass Flow, g/s | | | | | | | | | |
|------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 9.10 | 11.10 | 13.45 | 16.10 | 19.20 | | | | | |
| 15.0 | 9.03 | 11.10 | 13.45 | 16.20 | 19.25 | | | | | |
| 20.0 | 8.93 | 11.05 | 13.45 | 16.20 | 19.30 | 22.80 | | | | |
| 25.0 | 8.79 | 10.95 | 13.35 | 16.15 | 19.30 | 22.80 | 26.80 | | | |
| 30.0 | 8.63 | 10.80 | 13.25 | 16.05 | 19.25 | 22.80 | 26.80 | 31.20 | 33.10 | |
| 35.0 | 8.43 | 10.65 | 13.15 | 15.95 | 19.10 | 22.70 | 26.70 | 31.10 | 33.00 | 36.00 |
| 40.0 | 8.21 | 10.45 | 12.95 | 15.80 | 18.95 | 22.50 | 26.50 | 31.00 | 32.90 | 35.90 |
| 45.0 | 7.96 | 10.20 | 12.75 | 15.55 | 18.75 | 22.30 | 26.30 | 30.70 | 32.70 | 35.70 |
| 50.0 | | 9.95 | 12.50 | 15.30 | 18.50 | 22.00 | 26.00 | 30.50 | 32.40 | 35.40 |
| 55.0 | | | 12.20 | 15.00 | 18.15 | 21.70 | 25.70 | 30.10 | 32.00 | 35.10 |
| 60.0 | | | | 14.65 | 17.80 | 21.30 | 25.30 | 29.70 | 31.60 | 34.70 |
| 65.0 | | | | | 17.40 | 20.90 | 24.90 | 29.30 | 31.20 | 34.20 |
| 70.0 | | | | | 17.00 | 20.50 | 24.40 | 28.80 | 30.70 | 33.70 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|-------------------------|
| Displacement @ 50 Hz, m³/h | 10.0 |
| Length/Width, mm | 253/243 |
| Height, mm | 401 |
| Net Weight, kg | 27.9 |
| Gross Weight, kg | 29.3 |
| Stub Suction, inch | 3/4 |
| Stub Discharge, inch | 1/2 |
| Oil Quantity, l | 1.45 |
| Oil type (original charge) | POE Hatcol 4467 |
| Oil type (approved oils) | POE Hatcol 4467 |
| Base mounting (hole dia), mm | 190 x 190 (19) |
| Sound Pressure @ 1m (HT), dBA | 63 |
| Sound Power (HT), dBA | 74 |
| Sound Conditions (HT, Temperatures: | -7 / 50 / 3 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed) | |
| PED Category | 2 |
| Max. Low Side Internal Free Volume, l | 4.3 |
| Max. High Side Internal Free Volume, l | 0.5 |
| Max. Internal Free Volume, l | 4.80 |
| High Side PS gauge, bar | 28 |
| Low Side PS gauge, bar | 17 |
| Low Side TS Max., °C | 50 |
| Low Side TS Min., °C | -35 |
| High Side TS Max., °C | 150 |
| High Side TS Min., °C | -35 |
| Refrigerant's GWP | 3 |
| Refrigerant's classification | A3 |

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

| | |
|------------------------------|----------|
| Maximum Operating Current, A | 6.8 |
| Locked Rotor Current, A | 46 |
| Winding Resistance, ohm | 4.03 |
| Default Enclosure Class | IP 54/65 |

ACCESSORIES INCLUDED

| | |
|-------------------|----------|
| Mounting Grommets | Standard |
|-------------------|----------|

ACCESSORIES OPTIONAL

| | |
|----------------------------------|---------------------------|
| Discharge Temperature Protection | Discharge line thermostat |
| Crankcase Heater | 55 W External |

MOTOR OPTIONS

| Motor Code | Power Supply | Nominal Voltage, V | Start Connection | DOL Connection | Amps Factor |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TFM | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TFD | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TFD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |